

**PERIODIC AERATION IN AN ACTIVATED SLUDGE REACTOR
FOR WASTEWATER TREATMENT**

ABSTRACT

5 A method for treating wastewater. The method includes the steps
of flowing the wastewater in the absence of any additional carbon source
into a treatment basin in order to form the contents of the treatment basin
and treat the wastewater, mixing the contents of the treatment basin,
introducing oxygen into the treatment basin for a first predetermined time
10 period of from about 10 to about 120 minutes, stopping the introduction of
oxygen into the treatment basin for a second predetermined time period of
from about 7.5 to 120 minutes, repeating the steps of introducing oxygen
into the treatment basin for a first predetermined time period and stopping
the introduction of oxygen into the treatment basin for a second
15 predetermined time period a plurality of times, and flowing the treated
wastewater out of the treatment basin into a clarifier, where treated
wastewater is separated into clarified liquid effluent and sludge. Also
provided is a process for reducing the level of nitrogen compounds in
wastewater.

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RMH10556